

1967

May 6th Went out with Phil Shelton at 2am to get *Burcklia*
Red-footed Booby returns ~~returns~~ from the guy wires. We
got into a 7-8' rubber raft and paddled around to
all 21 of them. Phil paddled and I tried to net
the boobies off the wires. That being unsuccessful,
we just reached and grabbed ass. They fell on us,
barfed on us, crapped on us, bit us, clawed us
all night long. I should also mention that the damn
raft was half full of water waist high when we
quit at 5am. Results were 19 birds banded and 9
returns and one hell of a good laughing ass time

May 8 - May 18 See typed notes - also includes
notes of P. C. Shelton from 1 May to 8 May.

May 19 - arrived Hono via C-124, flying wild ass
boreas that it is 2200

May 23 - depart on Leewards cruise from Pearl at 1400.
Smithsonian Party is composed of our hero, Bob DeLong,
Bob Tuxson, Chris Thompson, Benion Amerson, T. H. H.
and Dennis Stadel who missed the boat and will meet
us somewhere? 3 LTs are being used LT 2081, LT 2086, and
LT 2087. First we will stop off at French Frigate Shoals
to drop off Benion and T.H., then a short stop at
Gardener Pinnacle, then to Midway. These tugs are not
meant for such long trips, so it will be rough. I am
on the 86 with DeLong - Capt'n is Jack Robinson.
Observations were begun at 1730 just off the Pearl Harbor
breakwater. Today at sea commonly seen were ~~seen~~ seen
Wedge-tailed Shearwaters, Less commonly were Red-footed Boobies,
Common Noddies, Pomarine Jaegers and one Baird's Petrel

23 May - As it turned out I got queasy only once and
am fully adjusted to the toss and turn of the tug.
If it gets real rough, I might just lose my
lunch and a few other things.

24 May - Not much excitement today - but a hell of a lot
of birds. Mostly these were seen: Sooty Tern, Wedge-
tailed Shearwater, Fairy Tern, Bulwer's Petrel, a few of
these were noted: Gray-back Tern, Pterodroma sp., Red-F
Booby, Black-F. Albatross, Common Noddy, Great Frigatebird,
Christmas Island Shearwater, WRSP, Sooty Storm Petrel.

I should note that we were initially having trouble
identifying the Bulwer's Petrel - they were thought to
be Sooty S.P., but are too large in size and lack fork-tails
to be such. 3-4 feeding flocks were noted of ca. 200
birds, mostly of Wedgies and Super-Sooties. Occasionally
a Frigate would be overhead waiting to pirate. Over
95% of the Wedgies are Lt. phase!

25 May - Today we got French Frigate Shoals in sight
at ca. 0800 and at 1000 put the 15 man raft
over board to get rid of Binon and TSL from ^{LT} 2081 and
also to look around since we are ahead of schedule.
Upon cautiously traveling thru the reef and coral
we came upon Tern Island to behold a throng of
six-starved Coast Guardsmen welcome a plane
which was landing at the same time - they ignored
us. Anyway we dumped our goodies, sucked up a
beer and took Stadel, our wayward un six-starved
cohort, into our fold. Birds on Frigate Shoals were
Laysan Albatross, RTTB, ~~Fairy Tern~~ ^{Wedgies} which were nesting
(ca. 50 pair RTTB, 100 pair Laysan A.). Non-nesters were
Fairy Terns, Kahoa Finch (Transplanted); these 2 were
hopping around in the Casuarina trees. Birds from
at sea observations were: BF Albatross, Laysan A.,

25 May - Wedge-tail Shearwater, Sooty Tern, Fairy Tern,
Common noddy, Great Frigate, Bulwer's Petrel, Red F-
Booby, Christmas Island Shearwater. Also we observed
ca. 50 Pacific Bottle-nosed Dolphin ca. 4 miles off FFS.
The chief hauled in a BFA while trawling - crazy!

CP

26 May - Gardner Pinnacles - at 0900 today we departed
the LTs and jumped into the raft to scale the main
and largest of the three ^(pinnacles) islets. Gardner P. - are
almost a day from the nearest land (French Frigate Shoals)
and situated virtually like the desert island one sees
in cartoons, yet with a different terrain, not of sand
and palm trees ^{but of sheer rock.} The pinnacles are composed of lava
with some large boulders and rock sprinkled throughout
to give the appearance a cemented rock wall. From a
distance it is a sight of two large rocks that don't belong.
The larger appears like the hump and head of a camel, the
smaller like a phallus protruding upward as the god El
in the City of Mebor. A third, and insignificant rock is also
there. From a distance the peaks look ^{like} dusty snow caps, not
so, but guano. The perimeter of the rocks are covered with
algal growth and crabs and a slime of bird origin that
has trickled down the crags for centuries. Life on this
cliff in the middle of the Pacific is of one major occupant,
the bird, better said several species of sea birds.
Other animals noted were desmashed beetles and probably
some other carrion types along with ectoparasites.
Plant life noted: Portulaca in sparse amounts with
algae and probably some fungi. Only a very brief
survey was carried on; just to ascertain what was
there and in what quantities and of what activities.
We were there for ca. 2 to 2 1/2 hours. Counts and
estimates are done with little time to spare. Speculation

would best define the report on this select group. Est. max. height 190', size est. 1 acre in area.

Species Account

Laysan Albatross - one downy chick of ca. 70 days of age.
Wedge-tailed Shearwater - four seen, one came from a burrow with no known eggs or chicks. One dead individual.

Blue-faced Booby - 100⁺ nest sites³ with 2x as many adults attending them. Most of the boobs were found on top and along the upper slope of the pinnacles. 60% - 70% w/ chicks, rest with eggs.

Red T. Tropicbird - ca 20 nests - mostly with eggs - 1 known chick nested in crevices along upper slopes.

Gray-backed Tern - ca 4000-5000 adults using the island, mostly now attending to chicks ~ 1000 nest sites - mostly young of all stages - I did not notice many eggs - guess < 100. Nested on slopes

Sooty Tern - est. less # than GBT - probably 1/2 as many - appeared to be large no. of egg and chick mortality.

all stages
of chicks
many
nesting
eggs

Common Noddy - ca. 2000-3000 birds using island - nested on lower slopes - ca. 1000 chicks

White-capped Noddy - ca 200 birds using island - all stages resting - eggs to near fledglings ca. 50

Fairy Tern - ~ 300 birds with eggs, young up to flying immatures - nested at craggy peak at top of slopes.

Blue-gray Noddy - est 25 birds - 2 found with eggs.

Great Frigate - ca. 50 birds flying around - some roosting

Shorebirds seen - 1 RT, 2 WT

H. Monk Seals - 5 sunning on rocks of the "pinnacles"

Sula leucogaster - Three adults and one chick

27 May - continuing on toward Pearl / Hermes Reef.

Today at sea observations were made. Nothing unusual sighted. Mostly BFA, Laysan, WTS, Sooty Terns, Bulwers - began to see Bonin Island Petrels for the first time of the trip.

PTH R 28 May - at 0900 arrived near SE Island of Pearl and Hermes Reef. all 5 birdmen went ashore w/ sailor Costa driving the raft. We stayed, making a general survey until 1900, then we returned to the ship. All in all, I felt things were done in a rather half-ass manner, however, not as badly as on Gardner's pennack - perhaps because this has been my first island expedition and am green at it. Hopefully, the project of the past has not been carried on with people landing on islands, scratching their asses, looking around, and beginning to proceed with a survey in a seemingly unmethodic manner. * I SHOULD NOTE THAT I OFTEN JUDGE TOO HASTILY Though, I did not accomplish much, I did make a complete count of the BFA ^{chicks} by walking around the perimeter and tallying the no. of chicks. Similarly I counted the Noddybirds. Otherwise, I tagged along after Stadel and picked up what I could about how to detect and knowing where and what to look for. Mainly, I hadn't the slightest idea of what was going on - I'm not too certain that anyone else did either. Back with Stadel, we took egg measurements of 50 Sooties, 30 Noddies, 30 GB Terns, measured the culmens of 75 BFA and 75 Laysan Albatross chicks. Also took holes on C. Noddy nest material. I made a half-assed list of vegetation and attempted to learn their names.

Returns taken

BFB - 737-30195 AM
558-83519 AF } w/chicks
737-30215 A?

RFB - 737-30240 AM w/egg

BB - 737-30108 AM w/ADP
737-30289 AM "

WGN - 652-42316 w/egg

May 28 - cont.

P+H R

Laysan A - I counted 350 ch. in a small column while taking and chasing boobies on the whole it was a lousy count. The LA seen to nest inward on the island, few found on the shore line. Individuals in groups of 2 to 6 were seen going thru the motions of pair formation and maintenance, but these were SA birds since all eggs were hatched about 60 days ago. Found one club of 45 chicks alone inland.

Black Foot A - Counted 1234 chicks by walking around the perimeter I consider it an accurate count. For a total estimate of BFA chicks on the island I would say 1500 since I did notice small bunches inland that I didn't count. The BFA usually nest on the shore line or where vegetation begins
Wedge-tail - quite a few seen and numerous burrows - no known eggs.

Xmas Island Shearwater - Stadel saw one on an egg

Bonin Island Petrel - found only 2 chicks, about ready to fly - one in a burrow, other under Eragrostis.

Sooty Storm Petrel - one skeleton found with feathers - identified by Stadel - I saved the skeleton.

Red TT Bird - numerous, though I did not make an estimate (about 50 pairs?) - most on eggs, few with sm. downy chicks

Boobies

BFB - abundant along shore and inland - most had large downy chicks though some had still eggs. (75 pairs)

RFB - probably 20+ pairs on the island - saw 3 chicks which had to be the oldest booby chicks on the island - had begun preening. - nested in Scaevola along shore most had one egg in nest.

Bb. - primarily nested inland - most numerous booby ca. 50 pairs? about 50% eggs 10% chicks 40% eggs

May 28 cont.

P+H R

G-B Tern - most numerous bird on island next to albatross + ^{feeding}
Sooty Tern - all stages of breeding. many separate colonies
Sooty Tern - probably the latest nester on island in some places
along with noddies. - newer nests on perimeter of island.
(included most of nests, beginning to ^{hatch} hatchlings though higher %
of eggs on perimeter.

Common Noddy - mostly eggs - say 10% on sm. downy chicks
most of the CN nests were of Tribulus, feathers, bones, and
some seaweed and other leafy material - located on edge of
shore and begin. of vegetation

WC Noddy - numerous in some Scaevola bushes as they roosted
in groups of 25-50 - found nesting in Eragrostis in some
places where Laysan Finches were. Some have sm. chicks - most
eggs. Ca. only 10% of pop (ca 1000) were nesting

Great Frigate - mostly nests on the island - found only a
few roosting. ca 10% w/ chicks ca. 90% w/ eggs estimate of
breeding population ca. 200 pairs

Shorebirds

Golden Plover - saw only 1

R. Turnstone - made a complete island count in the morning - 59

W. Tattler - counted 4

Bristle J. Curlew - saw only 1

Laysan Finch - probably 50+ pairs on the island found
inland around Eragrostis. Stadel and I located 9
nests one with 4 eggs, 3 eggs, 2 eggs; 3 w/ no eggs and
3 that appeared vacated.

Midway

May 29 - Midway arrival - stayed for a day - messed around.
Bought 12 tapes at 2.50 ea. Went to the Officers club and
snarfed up 'Vodka Collins' at 2.00/drink. Not bad. Birds on
Midway were Laysan, A. all over, Fairy terns in Casuarina trees
WC Noddies, RTTB - these were all I saw.

Koger,

These are J. Buckhalter's
notes for Leewards #19.

J. DeLong

D+HR

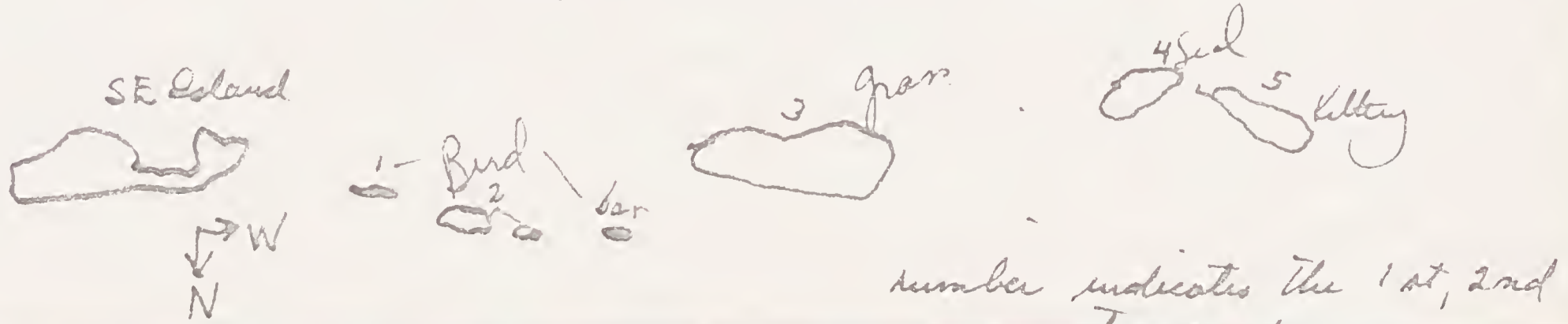
May 30 - Returned to SE Island of Pearl & Hermes Reef at about 1600. First thing we did was to unload the raft and pitch the camp since we are staying for 2 nights. afterwards a continuation of our previous survey was made. 2 new techniques were introduced to me by Gadel; #1 Egg floatation - one places egg in tin of H₂O and notes whether or not the egg floats and how ^{where} it floats. 10 Sooty Tern hatches in ~28 days
 1-5 days - egg on bottom, 5-15 mid, 15-25 egg rises high, if the egg tilts - the yolk is used up. This method of egg dating can enable one to gain an insight into sub-populations, when birds landed
 #2 To take an estimate of a nest population: measure an area, then measure 30-50 distances between nests and figure out density and population.

Took 13 Sooty Returns (of interest: 903-08519), 2 RFB, 2 GF, 1 WC Noddy, found 2 albatross bands. One of the GFs had an orange streamer (737-37124). of interest, I found 2 frigate nests with dead sooty terns ^{birds} inside - food. flushed 1 Laysan Seal from Sesuvium.

at night we bled birds and banded those bled. We accomplished 100 Laysan Albatross, 50 Great Frigates, 30+ Wedgetails. Got to bed at about 3am.

May 31 - Lux and Thompson went back to the 2087 to spin the blood samples. Me and Stick and Bob and Doc jumped in the raft to survey the other islands. In our eagerness to depart or whatever, no one brought food - so we didn't eat until 1700 that afternoon. talk about hunger, I was ready to eat an albatross raw or not! on each island or bar or patch of coral, a survey was made along with taking a few returns.

Map - not to scale



PHR
May 31 cont. - At each island stop, each man sort of had his own bird or birds or what not to survey. I counted BFB Booby nests and ^{recorped} the status of chick or egg and took returns if convenient also I counted C. Noddy nests/status and G.F. nests/status etc.

Stop #1 - Took total count of animals there: 8 Monk seals, 18 BFA chicks; 1 LA chick; 3 BFB nests w/ sm down chick, ned, 2E

Stop #2 - 2 BFB nests w/ 2E, 2M - 5 W.C. Noddies on bar

Stop #3. Grass Island - shore birds: R. Turnstone - 2, W. Tattler - 4, B.T. Cormorant - 1; BFB - only one nest w/M; ca 25 roosting W.C. Noddy Bonin Is. Petrel - 2 chicks about ready to fledge, in bonors; complete count of C. Noddy nests - 263, 251/4E, 12/S - I most likely missed some nests - so 300 would be an accurate estimate. on the periphery ca 100 roosting; Great Frigate - 54 nests w/ 30E, 16S, 8M - some were banded. Bob took returns

Stop #4 Seal Island - Wedgie burrows were numerous - burrows w every 3 feet; BFB counted 40 nests w/ 34E, 4S, 2M, 13L - Boobies an Seal nested on the peninsula or on the edge of the island, never do they seem to be inward with the albatross;

BFB returns:

Seal: ♂ 767-41996 - ch., ♂ 767-41977 - ch., ♀ 767-42310 - ch., ♂ 737-26592 - 2E
♀ 767-41973 - ch, ♂ 767-42306 and ♀ 767-42307 } pair w/ 1E, ♂ 737-26572 - 2E, ♂ 767-42000 - E,

Fairy Terns - saw 3 over island, came down to investigate me; W.C. Noddy ca. 200 roosting on shore of peninsula; GB Tern - ca 100 nests up to 10+ days chicks on peninsula; C. Noddy - ca. 50 nests up to sm ch. on peninsula shore birds; 1 R. Turnstone; W. Tattler - 4, RTTB were present - 3 nests

Kittling

Stop #5 BFB nests - 21 w/ 4E, 4S, 6M, 11L

BFB returns: ? 737-30367 - ch, ♀ 737-30371 - ch., ♂ 737-30361 and ♀ 767-41982 } pair
♂ 737-30366 - ch, ♀ 737-30369 - on fish ball.

No vegetation on this island - other birds LA, BFA, F Tern
* of general interest, I forgot to ^{say} note that #1, #3, #4, #5 contained large nos. of albatross (LA, BFA) ca > 1000 per island except for #1
These islands had vegetation - 3, 4, 5 - others were barren with only fish balls and Gap whiskey bottles.

P+HR

Start here

June 1 - Last night we were to land 500 Wedges - but such was an aborted idea since we were all so god-damned tired. We all slept until 0700, having banded the same no. of birds - ZERO - big deal. After putting the coral from my eye and the Tribulus spines from my ass, drinking a beer and taking a piss, I jumped back in my smelly sleeping bag for a few more writes. Now that I had overcome ^{my} early morning paralysis, though poor Buford remained unsatisfied, I pushed a couple of albatrosses, plucked some Sooties, plucked a tropic bird tail feather and farted, and then proceeded to take Sooty returns - got 70 - hard as hell to find. Later we loaded up the raft after taking down the tent and got back to the ship at 1230. Now we are on our way to Lisianski and 5 more days of birdshit and bullshit - but I still am enjoying myself! Today we opened our returns and other goodies that require pen and ink and staying out of the rack. Oh, the rack is only second to the wild, intercourse-loving woman in it. Come on 16 June and Honolulu and the beach.

HIS

June 2 - Arrived on Lisianski about 1000; took a walk down the beach to take in what was going on and to see what ^{birds were where} ~~was going on~~. When all supplies were on the beach, we pitched the tent and set up camp. - then spent 5-6 hours circling the island to make a general survey, for the 1st half of the island. I traversed the mid-section thru mostly Scandela and Eragrostis. After a short rest, I headed closer to the shore. This is the summation of my count:

- Laysan A. - ca 1300 - taken mostly inland $\pm 25\%$
- BF Albatross - ca 700 - all but ca. 50 were from the beach $\pm 25\%$
- W.T. Shearwater - ca 30,000, ca 15,000 burrows - This estimate was arrived at by counting 25 burrows per pair taken in my "area". This figure that I arrived at was multiplied by 2 to get a breeding pop. estimate.
- Christmas Island Shearwater - Today I found 5 pairs, and 2 inds alone,

June 2 - cont. - Bonin Island Petrel - found 2 dead chicks

215 Red-Tailed Tropicbird - found only nests w/ eggs and I estimated ca 100 nests for my area, though the figure should probably be higher.

Great Frigatebird - I estimated 160 nests (probably lower for my area) 60% eggs, 10% sm. 15% med 15% lar. - upon closer examination many of the birds believed nesting were probably roosting.

Brown Booby - I found only 2 nests: 1 egg, 2 sm. chicks

Blue-faced Booby - I counted 83 nests - 25% E, 25% sm. 15% med 35% lar. - none of these nests were found inland, but along the shore.

Red-footed Booby - I counted 229 nests which contained about 55% E, 25% sm. 10% med 15% lar.

Sooty Tern - I found only one small colony of ca. 200 in the area I covered though there are many, many more Sooties on Lisianski.

Gray B. Tern - I found only 5 colonies - est. 300 total nests

Common Noddy - as a speculative estimate for the area I covered: 10,000

W.C. Noddy - ca 150 nests, ca 500 roosting birds for my area

Fairy Tern - commonly seen, though in small numbers ca 300 ^{in my area}

In my opinion, this survey was undertaken in too short a time for accurate estimate. I received much criticism from

Bob DeLong & Chris Thompson for the hasty nature of my memo book. I felt such was unjustified as I wrote my results &

figures in my journal. I also noted that I could not understand their books which contained little data

and little sense to me. I told them if they did not believe my figures that they should get drilled.

Tonight we witnessed a Green Turtle laying eggs directly in front of camp. She roared through all night. We heard

ca 125 Blue-faced Boobies and 25 Red-foot.

115
 June 3 - It rained like hell last night and when we woke up the wind was blowing hard. Lt. Com. Alderson thought we should return to the ship so we did - picked up a raft that came ashore from the 2086. The day was wasted as we caught up on lost sleep and farted off playing cards. Returned to the island after dinner and put the camp back in a "liveable" condition. Later on we were set to band but it started raining again so we waited out the rain and took ca 75 BFB returns and banded ca 100. It was another Thrill-packed day. Ho Ho!

June 4 - Today each person was on his own. I made a nest study of the Red-footed Booby and of the Great Frigate, also took a few returns. Later on I went out with Stadel and began to take egg measurements. Of the nest study, I sampled 50 nests on each side of the island (RFB) and 54 taken at random for the Frigates.

West Side:	East Side
contents - Eggs - 25	Eggs - 14
- Naked - 11	Naked - 5
SDC - 9	SDC - 18
MDC - 6	MDC - 7
LDC - 0	LDC - 6
height of nest - 1ft - 2	1ft - 5
Off ground 2 - 11	2 - 26
3 - 28	3 - 15
4 - 7	4 - 4
5 - 2	5 - 0
6 - 1	6 - 0
nest materials used -	
<u>Scorvoela</u> - 50/50	50/50
<u>Tribulus</u> - 48/50	50/50
Wild Cucumber - 19/50	2/50

115

June 4 cont. - general information on nesting: RFB nests have been as close as 1 to 2 feet from each other or as far as in distant and different Scaevola bushes. usually nests were clumped in 3 to 4 per bush or group of closely growing ones. actually there appears to be no actual dense nesting colony here, but many scattered single or ^{sm.} groups of nests. Most nests were constructed of Scaevola and Tribulus, some having W. Cucumber in them. In the general areas of nesting the only plants were Scaevola, Tribulus, Wildcucumber, Eragrostis, Boerhaavia, and Sporox indicia - the latter 3 were not used in nest construction. The cucumber leaves were found only in nests close to these growths. The RFB nests were usually from 4" to 6" in depth and > 1 ft. in width. On the top of the nest was further material in most indication that most of the sites were previously used - also old nest materials and guano deposited on the ground indicated this. All nests examined were constructed on Scaevola bushes where branches forked out to provide a level base for a foundation of Scaevola twigs. Upon the initial, coarse layers of S. were found usually Tribulus and sometimes Wild Cucumber which added softness to the nest. Also S. leaves were often found on the top layer. Most of the nests were from 2-3 ft off the ground as most bushes were of this height. I returned 6 birds from nests - one was fresh orange streamer #587-90406 on a fresh egg.

Frigate nests = 54 were checked

height of nests	colony	rest materials
1 ft - 10	} colony	<u>Scaev.</u> - 57/57
2 - 20		<u>Trib.</u> - 50/54
3 - 4		<u>WC</u> - 6/54
		<u>Spo. ind.</u> - 50

At night we went out to band Sooty Terns and Wedgies I did 500 Sooties and 100 WTS before I got sick and barfed all over the place. During the day I had had only one meal, and that one of 5 beers at the Navy beach party. Somehow I crawled back to the tent with a dinner man.

his
June 4 cont - who also got sick, but did not get to sleep until about 3 am. due to my pathetic conditions, a wet, sandy sleeping bag and tons of flies. God damn, that night was one of the most miserable I've ever lived.

June 5 - Things got better as the Navy or DeLong or somebody decided that birdmen should eat just like anyone else (i.e. 3 meals/day and juice instead of stinky bread and warm ~~tea~~). We got STEAKS and some juice!! In the morning we went out and banded 1000 Albatrosses - no and Amerman did 300 Laysan. The rest of the day was spent finishing up surveys, started earlier. I went back to the Tugs with Chris and Lux to get more juice and mainly to take a shower since I smelled like a sweat boy. Ugh! That night I went out with Stadel to band and return Blue-faced Boobies. We did 46 bands and 83 returns - then banded the others band some Wedgies before turning in at 2 am.

June 6 - Got up about 0900 and started to break camp - taking down tents, burying garbage and taking pictures. I ceased 5 miserable, educating days on Lisianski. Upon return to the Tugs, one of the rafts came inverted. Like an ass-hole, I jumped in after it with an oar and swam out about 100 yds before I realized that the current was taking it faster than I could swim. I headed back to find DeLong behind me - gasping a little - we had to throw in a line to pull him out of the brine. Thank Odin and Zeus and the other jobbers up there that no sharks were around. I'll never do an idiot stunt like that again. It may ruin my plans to beat Methuselah. Anyway, we are heading toward Laysan and further episodes in getting tired, ^{being} parched by the sun, infested with frigate Hippoboscids, bitten and chewed on by boobies, pedaled by flies, pooped on by boobies and scratched to death by Wedgies. Such is the life of a Birdman. We must be a tough, rascal breed.

HAY June 7 - Arrived at Laysan Is. about 1000 and immediately set up camp. Afterwards we set out around the island which is ca. 7 miles in circumference to survey the birds. Needless to say this took the rest of the day. I tromped thru the Scaevola just inside the sandy beach for my part of the count. My estimates are as follows for my area: Laysan Albatross chicks - ca 4800; Black-foot chicks - ca 1400; Red-footed Booby - 70 nests, 29 of which contained 13 eggs, 10 SDC, 1 MDC, 5 naked chicks; Brown Booby - 3 nests - 2 of which had eggs, the other none; Blue-faced Booby - 18 nests - 8E, 7SDC, 5MDC, 2LDC, 1 naked; Great Frigatebird - 466 nests, 267 of which contained 100 eggs, 95SDC, 4MDC, 68 naked - ca 50 more were vacant; RTTB numerous in Scaevola - only checked 22, 17 eggs, 4SDC, 1MDC; The following birds were noted in great numbers, but no attempt was made to estimate their numbers - Wedge-tail Shearwater, Bonin Island Petrel (near-fledgling chicks), Christmas Island Shearwater, White capped Noddy, Common Noddy, Gray-backed Tern, Sooty Tern, Fairy Tern, Bulwer's Petrel. The WTS have highly vernalized brood patches indicating that eggs are here though they haven't been found yet - their courtship is intense. Gray-backed Terns are flying already (young). Sooties in the N are later nesters than in the S. - one small colony has chicks - but many birds are still coming down to lay.

eggs laid
June 11,
one egg hatched

At night we kept up the pace by each banding 1000 Sooties and 100 Wedgies. I decided to fait off sooty returns and see how fast I could band. Beat everyone to bed by an hour. It took me less than 2 hours. Yeh for me. I'll probably never get another chance to develop my skill. Took 5 wedgie returns. Tomorrow we are going to play games with Albatross - band them

June 8 - Took off with Inoon to play bands on 500 Laysan chicks each. When we got done on the other side of the island we almost collapsed on the way back it was so god-damned hot

LAY

June 8 cont. - In the afternoon we tried to rack out in the tent under mosquito netting - but to no avail since the flies and heat were unbelievable - too miserable to work - so we went back to the tug. Upon return I grabbed my net and went out to take Sooty returns - got 119 - one a Sand-Island bird from Sept 1963. At night we took it upon ourselves to bleed our quota of 200 birds per island. We walked down to the lagoon and got 25 BF Boobies and then stumbled onto several large groups of roosting frigates - got about 125 of them and then got 50 Wedgies. It was funny as hell to watch the horny old males hop onto the females ^{Wedgies} and just bleed (sapped of their strength) and hump away like crazy. The poor old female was too tired to do anything. At 5 am we ended our marathon. We haven't eaten the last 4 meals - strictly a liquid diet of juice.

June 9 - Slept long enough to get back to the ship just in time for dinner and slept the rest of the afternoon. At 1600 I went back to Laysan and took 142 returns, then went out with Stadel later on to land and take Blue-faced Booby Returns down by the lagoon - walking around it we banded 50 and took slightly more returns. At 0100 we found a Sooty Storm Petrel in the Lagoon - drenched. Apparently it was a young bird since we have noticed young Bonin Is. Petrels in the same predicament. This offered the only "excitement" of the day other than an additional ^{we also banded 100 UTS each.} → gear afflicted to my wrist by a booby. Went to bed about 0300.

June 10 - Today was similar to yesterday - went back to the tug to eat and escape the flies and take a shower to kill perhaps the last case of B.O. I've ever had. If you think I was bad, you should smell that rotten Thompson - whew! Since Bob is still hot for returns I lazily got Φ before drinking dinner. Before dark Stadel and I went out to take culmen measurements of Laysan and Black-foot chicks. Apparently he and some of the earlier birdmen worked out a correlation of age of chick with

1969

June 10 cont. - culmen growth on Kure Island. Steve says that according to the data they gathered in 1965? one can tell within 2-4 days the age of the chicks by having a statistical sample of culmen lengths (stat. sample = 30 at least)
Our measurements were in mm. (from base to tip)

Laysan chicks:

97.5	95.3	105.3	98.4	100.7	109.9
104.5	109.8	101.1	104.5	103.2	109.7
104.0	111.5	104.1	92.0	98.9	103.1
99.0	103.4	109.3	102.8	99.9	112.0
105.6	106.0	90.4 runt	102.0	105.3	102.1

Black-foot chicks

102.1	101.0	94.7	102.9	98.1	99.9
104.1	108.8	99.7	105.7	103.5	97.4
104.0	95.2	108.1	106.0	100.7	97.9
101.4	104.6	100.7	106.4	104.5	100.1
107.4	97.3	105.1	95.4	103.0	106.7

At night I set out along the shore to band Christmas Island Shearwaters with DeLong. The others took off to band Bulwer's Petrels. We also took egg floatations and noted brood patch condition. Christmas Is. were small in number as only 46 were banded - all along the rugged S. shore. Where we were the Bulwer's were extremely abundant, under rocks, on top of them - calling wof wof etc. Bob and I witnessed a scene of territorial behavior over a nest site under a rock. Apparently 2 males (guess) were engaged in combat. They rolled around biting each other - interlocking beaks in their fury. They even stood up on "tip toes" leaning against a rock like struggling cowboys, finally falling down. After 5 minutes or so of buffing and puffing and scratching and biting one bird took off and wandered about 3 ft away. The victor walked around a bit seemingly regaining his composure and went under his newly won home. I placed the loser under the victor's rock, but he immediately ran away then flew.

LAY

June 10 cont - Lulu on Stadel wandered over and we told dirty jokes for a while then got back about 3am I returned 4 Blue faced Boobies Stadel saw a Blue-gray noddy on the rocks.

June 11 - In the morning I took off to shoot up 2 rolls of film got some good shots up the Laysan track and of the Laysan Duck - also one of a BFB sitting on an old albatross egg. At noon we went back to the tug for food and rest time.

Upon return to Laysan, I took off with Bob DeLong on a trip around the circumference of the island - he surveying the skinkers, monk seals, me banding Christmas Is. and counting shorebirds while selecting fishballs. I banded 27 on the N shore while taking egg floatations at the same time. Got one return 544-45624 (new band 544-52973). In the evening we all went out to return boobies. I could hardly crawl after walking around the island twice already (ca 15 miles). I was going to put the remaining 544-bands on Wedgies, but I heard Christmas Is. calling directly behind camp. - so I checked and found them to be quite numerous in the Scarcels - in an hour I banded the remaining 27 needed to complete the string. Following is the data of 2 days taken from X-near Is. - floatation, status, etc. which were banded:

saw a few turtles
 should also mention that skinkers mark seals, me present island
 genus Lygosoma?

- | | | |
|--------------------------|----------------------------------|-----------------------|
| | 544-52901 - brood patch complete | 11 - nbp |
| bpc - brood patch compl. | 2 - egg - light to moderate | 12 - E - fresh - runt |
| nbp - no | 3 - E - heavy | 13 - nbp |
| E - egg | 4 - SDC pair w/#6 | 14 - E - pipped |
| SDC - from downy chick | 5 - no brood patch | 15 - nbp |
| m - med incubation | 6 - SDC pair w/#4 | 16 - bpc |
| h - heav | 7 - E - m to h | 17 - E - fresh |
| l - light | 8 - E - pipped | 18 - SDC |
| d bp defeathering | 9 - E - m to h | 19 - nbp |
| | 10 - E - m. | 20 - bpc - pair w/#21 |

HAH

June 11 cont - Counting only shorebirds on the perimeter I got 57 Ruddy Turnstones, 2 Wandering Tattlers, 5 Bristle-thighed Curlews, 0 Golden Plovers - I am certain that many times these numbers use the island - inland one finds large nos. of Plovers and Curlews by the lagoon. Back to the night's work, I took 106 Sooty returns and one Laysan Duck (615-30552). of the Sooty returns, these are strange (793-82257, 943-17848, 943-14501) I was so damned physically tired not to be fogged out tonight alone by falling in Wedge-tail holes, I managed to find the beach but turned the wrong way and stumbled along blindly before I found Stadel's light. He led my tired body back to the rack. ca. 2 am. Sometime today my KU roommate got married

June 12 - Texson, so anxious as he was to head back to Hono, was up at 0600 - we packed like mad-men, screamed obscenities at each other and at the seals and water and anything - got stuff on tugs - TO HONO AT 0900. ETA - 0900 15 June Now, I should briefly like to relate the most recent birdman dilemma: We got a message that one of our party was needed as a replacement on French Frigate - no one volunteered. Later it was recommended by Dr. Pyle that Chris Thompson go; he refused. DeLong being the BIC turned to me as an alternate. He asked me if I would go if he ordered me to do so. I replied no, but that I would go if Pyle ordered so. A message was sent to Dr. Pyle stating that personnel refused to obey / go. Dr Pyle's reply was an insistence upon Thompson going. He refused to do so because he felt that he had been "screwed" by the project enough and that he had leave coming. No one was dropped off at French Frigate Shoals. What fate awaits the birdmen who have tempered their firmness as steel? Will the ax fall? Actually, I think that we'll all get together with Dr. Pyle and have a party over a glass of beer or something. You know, when you get isolated from the world, tempers flare easily, and people become slightly insane. Come on Honolulu!!

LAY

June 11 cont - Christmas Island Shearwater data

21 - bpc - pair w/#20	31 - bpc - pair w/#32
22 - bpc	32 - dbp - pair w/#31
23 - bpc	33 - E - m to h
24 - bpc	34 - E - pipped
25 - bpc - pair w/#26	35 - E - pipped } pair
26 - bpc - pair w/#25	36 - bpc
27 - bpc	37 - bpc
28 - bpc - pair w/#24	38 - bpc
29 - bpc - pair w/#28	39 - bpc
30 - E-h	40 - bpc

41 - E - fresh	51 - SDC	61 - bpc - pair w/#60
42 - bpc	52 - bpc	62 - SDC
43 - bpc	53 - E-m	63 - SDC
44 - bpc	54 - bpc	64 - E-m
45 - nbp	55 - bpc } pair	65 - E-m } pair
46 - nbp	56 - dbp }	66 - E pipped
47 - E-h	57 - dbp	67 - E-h
48 - E-m	58 - bpc	68 - SDC
49 - SDC	59 - SDC	69 - E-m
50 - bpc	60 - bpc - pair w/#61	70 - SDC

71 - } paired	81 - bpc	91 - bpc
72 - }	82 - bpc	92 - bpc
return 544-45624 73 - E-m	83 - bpc } pair	93 - bpc
74 - bpc	84 - bpc }	94 - SDC } pair
75 - bpc	85 - bpc	95 - SDC
76 - dbp	86 - E	96 - bpc
77 - bpc	87 - E } pair	97 - bpc } pair
78 - E	88 - E }	98 - bpc }
79 - MDC	89 - E	99 - bpc
80 - bpc	90 - bpc	100 - nbp